

POST-FIRE RECLAMATION & REVEGETATION

Case Study - Carr Fire Recovery Project in Northern California



Named the #1 Reclamation Project of the Year 2020 in the USA by Storm Water Solutions

As we see more high-intensity forest fires break out each year, we must learn how to address the protection of our soils. Post-fire reclamation and revegetation are extremely important in protecting our soils, watersheds, streams, lakes and groundwater resources. After a fire, treating and amending these soils with quality nutrients builds soil health and helps establish good vegetation.

Carr Fire Recovery Project Facts:

- Rehabilitation began in December 2018 and concluded in April 2020.
- Biosol Forte was the slow-release fertilizer of choice for the project.
- 1,160 acres were seeded and amended, using Biosol Forte at 400lbs/acre.
- 91% herbaceous canopy cover was established in the 1st growing season in areas treated with Biosol Forte and mulch.
- 12 times less sediment discharged to downstream locations from areas treated with Biosol Forte.



Post-Fire Untreated Area



Area Treated with 400lbs of Biosol Forte



Untreated Area on the Left
Area Treated with Biosol Forte on the Right

Biosol Forte has a history of successful results when used in post-fire restoration. Excellent results were observed when Biosol was used to assist with soil stabilization and vegetation establishment on the Coal Seam Fire in Colorado, Carr Fire in California and Los Alamos Fire in New Mexico. These post-fire areas were all successfully rehabilitated with one application.

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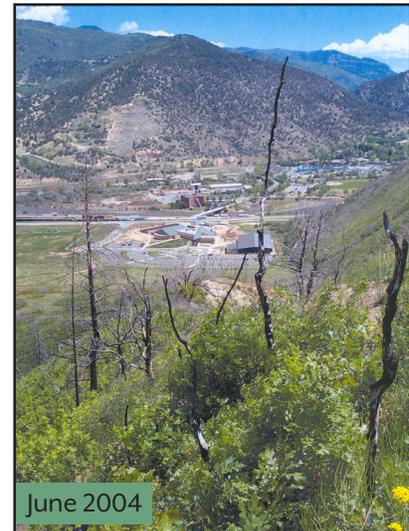
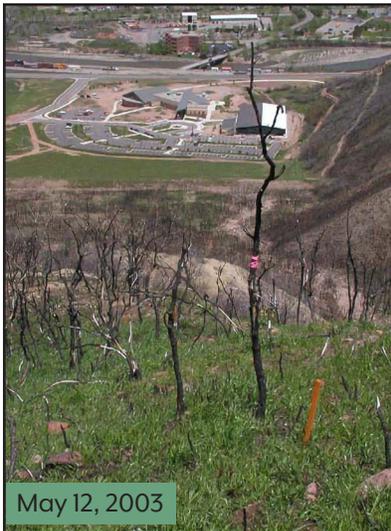
Case Study - 2002 Colorado Wildfires

Fire Recovery with Biosol vs. Fire Recovery without Biosol

It is important to understand the severity of a burn and how that affects soil properties. Fires alter the cycling of nutrients, soil life, physical properties, moisture and temperature characteristics of the soil. Biosol Forte has been a proven and effective product in post-fire reclamation for over 20 years with long-lasting success from just one application.

Why Biosol Forte Works in Fire Recovery:

- is a plant-based, fermented, organic, and multi-nutrient fertilizer with soil amendment qualities
- its unique organic matter, bacterial and fungal biomass, are stable complex compounds that will support vegetation for several years to establish nutrient cycling on burned sites
- its unique compounds break up the hydrophobic layer caused by fires, allowing water to penetrate the burned soil to support healthy plant and soil life
- its vegetation results are proven to reduce erosion and sediment loss on highly burned sites



Coal Seam Post-Fire Revegetation Plots

Coal Seam Post-Fire Project in Glenwood Springs, CO Facts:

- Biosol Forte was applied at 400 lbs/acre with mulch and SuperTak.
- Dan Sokal, with the BLM, said, "It's been over a month, with several rain events, and the treated areas are holding up very well. This process was greatly received by the public." He also stated, "After one year, we had over 70% herbaceous cover."
- The following year Steve Bennett, with the BLM, said, "After two years, the test plots were difficult to find due to the growth, even though they were marked with 18-inch wooden stakes."

Hayman Fire Recovery Project South of Denver, CO Facts:

- Biosol Forte was NOT used in fire restoration.
- Ken Kannan from the Hayman BAER team said, "After the first year only 35% of our seed germinated."
- Due to the poor seed germination, the Hayman fire area has been re-seeded several times.